

A Comprehensive CHP Program for New York State

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NYSERDA's DG-CHP Program

- Develop & Demonstrate Innovative DG Technologies & CHP Applications
- Promote Clean & Efficient Available Systems
- Reduce Hurdles through Shared Knowledge
- Install Megawatts of Generation Capacity
- Funding: \$15 million per year

Cumulative CHP Market Penetration Projection by 2012 (MW)

CHP System Size	Business As Usual	Accelerated
50 to 500 kW	0	61
500 kW to 1 MW	92	331
1 MW to 5 MW	204	699
5 MW to 20 MW	208	704
> 20 MW	260	374
Total	764	2,169

CHP Benefits At Full Market Penetration

CHP Benefits	Business As Usual	Accelerated
Economic Savings (\$ million)		
2012 Annual	\$109	\$487
Cumulative (02-12)	\$536	\$1,825
Net Present Value	\$253	\$808
Energy Savings (trillion Btu)		
2012 Annual	25	74
Cumulative (02-12)	118	316
Annual Emissions Savings After 2012(tons/year)		
NO_x	3,210	10,282
CO₂	1,259,000	3,854,000
SO₂	9,778	27,766

NYSERDA's CHP Demonstration Program Installations (kW)

Technology	No. of Projects	Total Capacity	Typical Size
Engines	46	39,652	750
Turbines (Gas/Steam)	4	9,443	2,000
Microturbines	13	1,500	120
Fuel Cells	3 (8 installs)	2,300	250
Hybrids	3	3,428	1000
Totals	69	56,323	800

DG-CHP Program Summary

- Supporting 69 demo projects, 12 feasibility studies, and 10 technology/programmatic studies
 - NYSERDA funding of \$30 million (in ~\$100 M)
 - Demonstration projects will install over 30 MW of capacity for a peak demand reduction of 26 MW by in 2003
- CHP applications in industrial, agricultural, institutional, commercial, and residential sectors
- Field-Performance: Monitoring and Data Collection is Underway
- PON 750 – In Review - 50 Demo Projects - \$32 million, 107 MW

CHP Program Challenges

- Interconnection standards have been issued by PSC for systems smaller than 300 kVa
- New Standby tariffs for most NY utilities are being developed
- NYS DEC is undertaking an air emissions standard rulemaking for DG
- Market Development in Northeast and in the U.S.